

Storage Tank Aluminum Anode

Storage Tank Aluminum Anode (Al-Zn-In series) utilizes the more negative potential of aluminum in electrolytes (internal tank bottom water, soil-side groundwater) to form a galvanic couple with the carbon steel tank bottom plate being protected. The aluminum anode dissolves preferentially, continuously delivering protective current to the steel surface, polarizing it into a safe potential range, thereby suppressing electrochemical corrosion.

It is primarily used for cathodic protection of the internal tank bottom water zone and the external tank bottom (soil side), especially suitable for crude oil tanks, product oil tanks, chemical medium tanks, and other locations where water phase deposition or humid conditions exist. Its advantages include high electric capacity, light weight, and convenient installation (typically bolted or welded via embedded steel core), effectively extending the service life of the tank bottom and reducing maintenance frequency.



KEY FEATURES

1. Highest current output per unit weight
2. Lightweight, ideal for large marine structures
3. Moderate driving voltage, safer operation
4. Relatively controllable cost, suitable for mass production of large castings
5. Stable potential in seawater and brine

APPLICATIONS

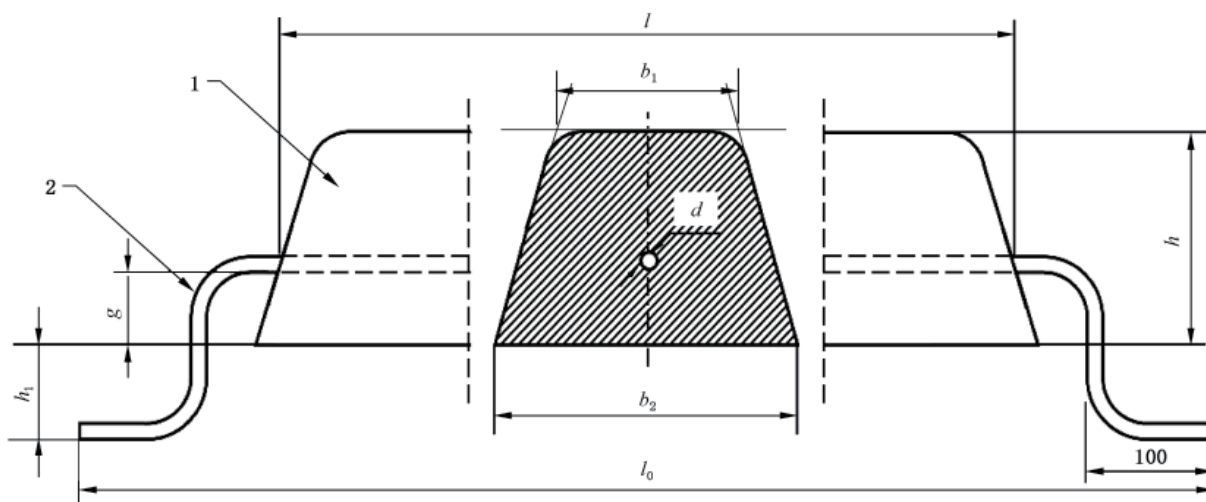
1. Crude oil tanks
2. Product oil tanks
3. Chemical medium tanks

PRODUCT SPECIFICATIONS

Chemical Composition(%)			
Executive Standard	DNV RP B401	GB/T4948-2025:A21	BS EN12496-2013: A3
Zn	2.5-5.75	4.0-7.0	4.75-5.75
In	0.015-0.040	0.020-0.050	0.016-0.020
Cd	≤0.002	/	≤0.002
Si	≤0.12	≤0.10	0.08-0.12
Cu	≤0.003	≤0.01	≤0.003
Fe	≤0.09	≤0.15	≤0.06
Mg	/	0.50-1.50	/
Ti	/	0.01-0.08	/
Other	≤0.10	/	/
Each Impurity	/	/	≤0.02
Total Impurity	/	/	≤0.05
Al	Remainder	Remainder	Remainder

Electrochemical Property			
Executive Standard	DNV RP B401	GB/T4948-2025:A21	BS EN12496-2013:A3
Open Potential(-V,vs SCE)	/	1.10-1.18	/
Closed Potential(-V,vs SCE)	≥1.05	1.05-1.12	1.05-1.12
Actual Capacitance(A·h/kg)	≥2500	≥2600	≥2500
Current Efficiency(%)	/	≥90	/

PRODUCT GUIDE



1--Anode body 2--Round steel feet

Type	Anode body size/mm	Size of iron feet/mm				N.W. kg	G.W. kg
	$l \times (b_1 \times b_2) \times h$	l_0	d	g	h_1		
CD-01	750×(115+135)×130	1050	16	50	60	32.0	34.0
CD-02	500×(115+135)×130	800	16	50	60	21.5	23.0
CD-03	500×(105+135)×130	800	16	40	60	15.6	17.2
CD-04	300×(105+135)×130	600	10	40	60	9.5	10.0